BRUHAT BANGALORE MAHANAGARA PALIKE

PROJECT DIVISION YELAHANKA ZONE

DETAILED COST ESTIMATE

Package-02

Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No.06

Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06

Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06

Providing Footpath and Maintance in Ward No.06

DESCRIPTION	AMOUNT IN LAKHS
Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06	6000000
Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06	8000000
Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06	5000000
Providing Footpath and Maintance in Ward No.06	3000000
TOTAL AMOUNT	22000000

Rupees Two Crore Twenty Lakh(s) Only

The estimate is prepared based on the PWD SR, Bangalore circle for year 2016-17.

The provisions made in the estimate are necessary and essential.

The site/spot was inspected and work is found to be necessary.

The work comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Engineer

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Executive Engineer
Project Yelahanka Division

H.V.N
Executive Engineer
Yelahanka Division
18/6
18

Administrative Approval

Accorded For RS. 220.00 Lakhs
Head of A/C P-3075
CER NO :56 Dt:22/02/2019

H.V.N
E.E. (Project)

Technical Sanction

Accorded For 220.00 Lakhs only
Head of A/C P3075
CER NO :TS/10/18-19 Dt:21.06.18

JA
CE (YNK)

BRUHAT BANGALORE MAHANAGARA PALIKE

PROJECT DIVISION YELAHANKA ZONE

DETAILED COST ESTIMATE

Package-02

Name of Work : 1. Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No.06
Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06
Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06
Drilling of Borewells and Maintance in Ward No.06

Sl. No.	DESCRIPTION	AMOUNT IN LAKHS
1	Improvements to Roads and Drains From Hegdenagar petrol bunk to MCECHS park in Ward No. 06	6000000
2	Improvements to Roads and Drains in Hegdenagar and Surrounding areas in Ward No. 06	8000000
3	Improvements to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No. 06	5000000
4	Drilling of Borewells and Maintance in Ward No.06	3000000
	TOTAL AMOUNT	22000000
	Rupees Two Crore Twenty Lakh(s) Only	

Certificate.

1) The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2) The provisions made in the estimate are necessary and essential.
3) The workspot was inspected and work is found to be necessary.
4) The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Engineer

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Executive Engineer
Project Yelahanka Division

Executive Engineer
Yelahanka Division

18/6/18

Administrative Approval

Accorded For RS. 220.00 Lakhs
Head of A/C P-3075
CER NO :..... Dt: 22/02/2019

E.E. (Project)

Technical Sanction

Accorded For 220.00 Lakhs only
Head of A/C P-3075
CER NO :TS/16/18-19 Dt: 21.06.18

JA

CE (YNK)

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: 6.Improvement to Roads and Drains in Hegdenagar petrol Bunk to MCECHS Park in Ward No.06

Est Cost: =60.0Lakh

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	MCECHS Layout								
	Shiradi Sai Rathan Layout Main Road		2	620.00	0.50	0.40	248.00		
	over burden earth								
			2	70.00	1.20	0.50	84.00		
							332.00	202.92	**67369.44**
	Basic rate	82.00							
	Loading and unloading with 15km lead= 68+2.50x1.28x15 = 116	116.00							
	Sub Total	198.00							
	Area Weightage 6%	4.92							
	Final Rate	**202.92**							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	MCECHS Layout	Sqm							
	Shiradi Sai Rathan Layout Main Road		2	620.00	1.35		1674.00		
							334.80		
	Consider 20% For R&R						-66.96		
	Consider 20% for Damaged and Missing Slabs						**267.84**	80.56	**21577.19**
	Basic rate	76.00							
	Area Weightage 6%	4.56							
	Final Rate	**80.56**							
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm					66.96		
	Consider 20% for Damaged and Missing Slabs						**66.96**	665.68	**44573.93**
	Basic rate	628.00							
	Area Weightage 6%	37.68							
	Final Rate	**665.68**							
4	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Hegadenagar								
	MCECHS Layout								
	Shiradi Sai Rathan Layout Main Road		1.00	620.00	7.50	0.25	1162.50		
							1162.50	164.76	**191533.50**
	Basic rate	46.00							
	Loading and unloading with 15km lead= 68+2.50x1.28x15 = 116	116.00							
	Sub Total	162.00							
	Area Weightage 6%	2.76							
	Final Rate	**164.76**							

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
5	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Hegadenagar	Cum							
	MCECHS Layout								
	Shiradi Sai Rathan Layout Main Road		1	620.00	7.50	0.25	1162.50		
							1162.50	1768.08	**2055393.00**
	Basic rate	1668.00							
	Area Weightage 6%	100.08							
	Final Rate	**1768.08**							
6	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Hegadenagar	Cum							
	MCECHS Layout								
	Shiradi Sai Rathan Layout Main Road		1.00	620.00	7.50	--	4650.00		
							4650.00	27.56	**128154.00**
	Basic rate	26.00							
	Area Weightage 6%	1.56							
	Final Rate	**27.56**							
7	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2 5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
		Sqm							
	For Laying DBM								
	MCECHS Layout								
	Shiradi Sai Rathan Layout Main Road		1	620.00	7.5	--	4650.00		
	For Laying BC								
	MCECHS Layout								
	Shiradi Sai Rathan Layout Main Road		1	620.00	7.5	--	4650.00		
							9300.00	12.72	**118296.00**
	Basic rate	12.00							
	Area Weightage 6%	0.72							
	Final Rate	**12.72**							
8	KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507 (P.No.162 I.No. 21.17.6 of PW,P&IWTD S.R 2016-17)								
	Hegadenagar	Cum							
	MCECHS Layout								
	Shiradi Sai Rathan Layout Main Road		1	620.00	7.5	0.05	232.50		
							232.50	7120.02	**1655404.65**
	Basic rate	6717.00							
	Area Weightage 6%	403.02							
	Final Rate	**7120.02**							

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
9	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	MCECHS Layout	Cum							
	Shiradi Sai Rathan Layout Main Road		1	620.00	7.5	0.04	186.00		
							186.00	8118.54	**1510648.44**
	Basic rate (issue Rate)	7659.00							
	Area Weightage 6%	459.54							
	Final Rate	**8118.54**							
10	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	620.00	0.10	--	124.00		
	Center Line		0.5	620.00	0.10	--	31.00		
							155.00	542.72	**84121.60**
	Basic rate	512.00							
	Area Weightage 6%	30.72							
	Final Rate	**542.72**							
							Total Construction Cost		**5876471.753**
							Cost towards PMC / Third Party inspection LS		**117530.00**
								Sub Total	**5994001.75**
11							**Miscellaneous and rounding off**		**5998.25**
								Total	**6000000.00**
12									

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer

18/6/18

BRUHAT BANGALORE MAHANAGARA PALIKE

Project: 7.Improvement to Roads and Drains in Hegdenagar and Surrounding area in Ward No.06

Est Cost: =80.0Lakh

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	Removing and resetting of footpath slab (P.No.265, I.No.37.56 of PW, P&IWTD SR 2016-17)								
	Hegadenagara Western Side	Sqm							
	6th cross Road Ch 210-460		2	250.00	0.90	--	450.00		
	7th Cross Road Ch 212-460		2	248.00	0.90	--	446.40		
	Damaged slabs/missing 20%						-179.28		
	7th Cross Road Ch 0-212 (35% cover)		2	74.20	0.90	--	133.56		
							850.68	132.50	**112715.10**
	Basic rate (issue Rate)	125.00							
	Area Weightage 6%	7.50							
	Final Rate	**132.50**							
2	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Cover Slab	Sqm							
	Damaged slabs/missing 20%						179.28		
	7th Cross Road Ch 0-212		2	130.00	0.90	--	234.00		
							413.28	1738.00	**718280.64**
	Data rate	1738.00							
3	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Hegadenagara Western Side								
	6th cross Road		2	460.00	0.50	0.40	184.00		
	7th Cross Road		2	460.00	0.50	0.40	184.00		
	Hegadenagara eastern Side								
	1st cross Road		2	90.00	0.50	0.40	36.00		
	Cross Road		2	140.00	0.50	0.40	56.00		
							460.00	202.92	**93343.20**
	Basic rate	82.00							
	Loading and unloading with 15km lead= 68+2.50x1.28x15 = 116	116.00							
	Sub Total	198.00							
	Area Weightage 6%	4.92							
	Final Rate	**202.92**							
4	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Hegadenagara Western Side	Sqm							
	6th cross Road		2	460.00	1.80		1656.00		
	7th Cross Road		2	460.00	1.80		1656.00		
	Hegadenagara eastern Side								
	1st cross Road		2	90.00	1.80		324.00		
	Cross Road		2	140.00	1.80		504.00		
	Consider 20% For R&R						828.00		
	Consider 20% for Damaged and Missing Slabs						-165.60		
							662.40	80.56	**53362.94**
	Basic rate	76.00							
	Area Weightage 6%	4.56							

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Final Rate	**80.56**							
5	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Consider 20% for Damaged and Missing Slabs						165.60		
							165.60	665.68	**110236.61**
	Basic rate	628.00							
	Area Weightage 6%	37.68							
	Final Rate	**665.68**							
6	Removing and resetting of kerb stones(P.No.185, I.No.37.57 of PW,P&IWTD SR 2016-17)								
	Kerbs	No.							
	6th cross Road Ch 210-460		2.00	250.00	--	/0.45	1111.00		
	7th Cross Road Ch 212-460		2.00	248.00	--	/0.45	1102.00		
	Consider 20% for Damaged and Missing Slabs						-442.60		
							1770.40	65.72	**116350.69**
	Basic rate	62.00							
	Area Weightage 6%	3.72							
	Final Rate	**65.72**							
7	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. (P.No.25, I.No.5.30 of PW,P&IWTD S.R 2016-17)								
	Kerbs	No.							
	New Kerbs								
	Consider 20% for Damaged and Missing Slabs						442.60		
	6th cross Ch 0-210		2.00	210.00	--	/0.45	933.00		
	7th Cross Ch 0-212		2.00	212.00	--	/0.45	942.00		
							2317.60	331.78	**763933.33**
	Basic rate	313.00							
	Area Weightage 6%	18.78							
	Final Rate	**331.78**							
8	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No.182, I.No. 24.1 of PW,P&IWTD SR 2016-17)								
	Kerbs	Sqm							
	6th cross Ch 0-210		2	210.00	--	0.35	147.00		
	6th cross Road Ch 210-460		2	250.00	--	0.35	175.00		
	7th Cross Ch 0-212		2	212.00	--	0.35	148.40		
	7th Cross Road Ch 212-460		2	248.00	--	0.35	173.60		
							644.00	63.60	**40958.40**
	Basic rate	60.00							
	Area Weightage 6%	3.60							
	Final Rate	**63.60**							
9	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Hegadenagar UGD Cutting								
	Hegadenagara Western Side								
	6th cross Road		1.00	460.00	2.00	0.25	230.00		
	7th Cross Road		1.00	460.00	2.00	0.25	230.00		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Hegadenagara eastern Side								
	1st cross Road		1.00	90.00	2.00	0.25	45.00		
	Bad Reaches		12.00	2.50	3.00	0.25	22.50		
			10.00	2.00	2.50	0.25	12.50		
			6.00	1.50	1.50	0.25	3.38		
							543.38	164.76	**89526.47**
	Basic rate	46.00							
	Loading and unloading with 15km lead= 68+2.50x1.28x15 = 116	116.00							
	Sub Total	162.00							
	Area Weightage 6%	2.76							
	Final Rate	**164.76**							
10	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Hegadenagar UGD Cutting	Cum							
	Hegadenagara Western Side								
	6th cross Road		1	460.00	2.00	0.25	230.00		
	7th Cross Road		1	460.00	2.00	0.25	230.00		
	Hegadenagara eastern Side								
	1st cross Road		1	90.00	2.00	0.25	45.00		
	Bad Reaches		12.00	2.50	3.00	0.25	22.50		
			10.00	2.00	2.50	0.25	12.50		
			6.00	1.50	1.50	0.25	3.38		
							543.38	1768.08	**960730.47**
	Basic rate	1668.00							
	Area Weightage 6%	100.08							
	Final Rate	**1768.08**							
11	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Hegadenagar Road Portion	Sqm							
	Hegadenagara Western Side								
	6th cross Road		1.00	460.00	2.00	--	920.00		
	7th Cross Road		1.00	460.00	2.00	--	920.00		
	Hegadenagara eastern Side								
	1st cross Road		1.00	90.00	2.00	--	180.00		
	Bad Reaches		12.00	2.50	3.00	--	90.00		
			10.00	2.00	2.50	--	50.00		
			6.00	1.50	1.50	--	13.50		
							2173.50	27.56	**59901.66**
	Basic rate	26.00							
	Area Weightage 6%	1.56							
	Final Rate	**27.56**							
12	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Hegadenagara Western Side	Sqm							
	6th cross Road		1.00	460.00	6.20	--	2852.00		
	7th Cross Road		1.00	460.00	6.00	--	2760.00		
	Hegadenagara eastern Side								
	1st cross Road		1.00	90.00	6.10	--	549.00		
	Cross Road		1.00	140.00	5.80	--	812.00		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Cross Road -1		1.00	80.00	5.40	--	432.00		
	Decuct Prime Coat						-2173.50		
							5231.50	3.18	**16636.17**
	Basic rate	3.00							
	Area Weightage 6%	0.18							
	Final Rate	**3.18**							
13	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
		Sqm							
	For Laying DBM								
	Hegadenagara Western Side								
	6th cross Road		1	460.00	6.20	--	2852.00		
	7th Cross Road		1	460.00	6.00	--	2760.00		
	For Laying BC								
	Hegadenagara Western Side								
	6th cross Road		1	460.00	6.20	--	2852.00		
	7th Cross Road		1	460.00	6.00	--	2760.00		
	Hegadenagara eastern Side								
	1st cross Road		1	90.00	6.10	--	549.00		
	Cross Road		1.00	140.00	5.80	--	812.00		
	Cross Road -1		1.00	80.00	5.40	--	432.00		
							13017.00	12.72	**165576.24**
	Basic rate	12.00							
	Area Weightage 6%	0.72							
	Final Rate	**12.72**							
14	KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507 (P.No.162 I.No. 21.17.6 of PW,P&IWTD S.R 2016-17)								
	Hegadenagar Road Portion	Cum							
	Hegadenagara Western Side								
	6th cross Road		1	460.00	6.20	0.05	142.60		
	7th Cross Road		1	460.00	6.00	0.05	138.00		
							280.60	7120.02	**1997877.61**
	Basic rate	6717.00							
	Area Weightage 6%	403.02							
	Final Rate	**7120.02**							
15	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Hegadenagara Western Side	Cum							
	6th cross Road		1	460.00	6.20	0.04	114.08		
	7th Cross Road		1	460.00	6.00	0.04	110.40		
	Hegadenagara eastern Side								
	1st cross Road		1	90.00	6.10	0.04	21.96		
	Cross Road		1	140.00	5.80	0.04	32.48		
	Cross Road -1		1	80.00	5.40	0.04	17.28		
							296.20	8118.54	**2404711.55**
	Basic rate (issue Rate)	7659.00							
	Area Weightage 6%	459.54							

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Final Rate	**8118.54**							
16	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	1230.00	0.10	--	246.00		
							246.00	542.72	**133509.12**
	Basic rate	512.00							
	Area Weightage 6%	30.72							
	Final Rate	**542.72**							
								Total Construction Cost	**7842650.198**
17							**Cost towards PMC / Third Party inspection LS**		**156854.00**
								Sub Total	**7999504.20**
18							**Miscellaneous and rounding off**		**495.80**
								Total	**8000000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer

Assistant Executive Engineer

Executive Engineer

18/6/18

BRUHAT BANGALORE MAHANAGARA PALIKE

Project:8. Improvement to Roads and Drains in Munivenkatappa Layout Nagawara in Ward No.06

Est Cost: =50.0Lakh

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Near Govt High School Thnisandra								
	1st Cross Road		2	110.00	0.50	0.40	44.00		
	Cross Road 1		1	65.00	0.50	0.40	13.00		
	Cross Road 2		1	65.00	0.50	0.40	13.00		
	Cross Road 3		1	65.00	0.50	0.40	13.00		
	Cross Road 4		1	180.00	0.50	0.40	36.00		
	Cross Road 5		1	165.00	0.50	0.40	33.00		
	New Drain								
	Cross Road in Rachenahalli Main Road		1	60.00	0.70	0.60	25.20		
	over burden earth								
			1	5.00	1.00	0.80	4.00		
			1	3.00	1.20	1.00	3.60		
							184.80	202.92	**37499.62**
	Basic rate	82.00							
	Loading and unloading with 15km lead= 68+2.50x1.28x15 = 116	116.00							
	Sub Total	198.00							
	Area Weightage 6%	4.92							
	Final Rate	**202.92**							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)								
	Near Govt High School Thnisandra	Sqm							
	1st Cross Road		2	110.00	1.80		396.00		
	Cross Road 1		1	65.00	1.80		117.00		
	Cross Road 2		1	65.00	1.80		117.00		
	Cross Road 3		1	65.00	1.80		117.00		
	Cross Road 4		1	180.00	1.80		324.00		
	Cross Road 5		1	165.00	1.80		297.00		
	Consider 20% For R&R						273.60		
	Consider 20% for Damaged and Missing Slabs						-54.72		
	Cover Slab								
	1st Cross Road		2	110.00	1.20		264.00		
	Consider 50% For R&R						132.00		
	Consider 20% for Damaged and Missing Slabs						-26.40		
							324.48	80.56	**26140.11**
	Basic rate	76.00							
	Area Weightage 6%	4.56							
	Final Rate	**80.56**							
3	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)								
	For BS Slab Drain	Sqm							
	Cross Road in Rachenahalli Main Road		1.00	60.00	1.80		108.00		
	Consider 20% for Damaged and Missing Slabs						54.72		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Basic rate	628.00					**162.72**	665.68	**108319.45**
	Area Weightage 6%	37.68							
	Final Rate	**665.68**							
4	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)								
	Bed Concrete	Cum							
	Flagging/Raising BS Slab Drain								
	1st Cross Road		2.00	110.00	0.15	0.10	3.30		
	Cross Road 1		1.00	65.00	0.15	0.10	0.98		
	Cross Road 2		1.00	65.00	0.15	0.10	0.98		
	Cross Road 3		1.00	65.00	0.15	0.10	0.98		
	Cross Road 4		1.00	180.00	0.15	0.10	2.70		
	Cross Road 5		1.00	165.00	0.15	0.10	2.48		
	Cross Road in Rachenahalli Main Road		1.00	60.00	0.15	0.10	0.90		
	PCC for SSM								
	1st Cross Road		2.00	110.00	0.45	0.10	9.90		
	Cross Road 1		1.00	65.00	0.45	0.10	2.93		
	Cross Road 2		1.00	65.00	0.45	0.10	2.93		
	Cross Road 3		1.00	65.00	0.45	0.10	2.93		
	Cross Road 4		1.00	180.00	0.45	0.10	8.10		
	Cross Road 5		1.00	165.00	0.45	0.10	7.43		
	Cross Road in Rachenahalli Main Road		1.00	60.00	0.45	0.10	2.70		
	Bed Concrete for road								
	Near Govt High School Thnisandra								
	Cross Road 3		1.00	65.00	4.80	0.10	31.20		
	Cross Road in Rachenahalli Main Road		1.00	60.00	4.80	0.10	28.80		
							109.20	5348.76	**584084.59**
	Basic rate	######							
	Area Weightage 6%	302.76							
	Final Rate	######							
5	KSRRB 5-14: Providing and Constructing precast concrete solid blocks with compressive strength not less than 3.5 Newton/sqm with cement mortor 1:4 masonry (quoin, jamb, closer blocks) with solid concrete blocks of size 40X15X20 cms confirming to I.S:2185/1965 in superstructure including cost of materials, labor charges, scaffolding, curing complete as per specifications (P.No.25, I.No.5.26.2 of PW, P&IWTD SR 2016-17)								
	Flagging Course / Raising of BS Drain	Sqm							
	Near Govt High School Thnisandra								
	1st Cross Road		2.00	110.00		0.20	44.00		
	Cross Road 1		1.00	65.00		0.20	13.00		
	Cross Road 2		1.00	65.00		0.20	13.00		
	Cross Road 3		1.00	65.00		0.20	13.00		
	Cross Road 4		1.00	180.00		0.20	36.00		
	Cross Road 5		1.00	165.00		0.20	33.00		
	Cross Road in Rachenahalli Main Road		1.00	60.00		0.20	12.00		
							164.00	961.42	**157672.88**
	Basic rate	907.00							
	Area Weightage 6%	54.42							
	Final Rate	**961.42**							

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
6	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)								
	Flagging Course / Raising of BS Drain	Cum							
	Near Govt High School Thnisandra								
	1st Cross Road		2.00	110.00	0.45	0.23	22.77		
	Cross Road 1		1.00	65.00	0.45	0.23	6.73		
	Cross Road 2		1.00	65.00	0.45	0.23	6.73		
	Cross Road 3		1.00	65.00	0.45	0.23	6.73		
	Cross Road 4		1.00	180.00	0.45	0.23	18.63		
	Cross Road 5		1.00	165.00	0.45	0.23	17.08		
	Cross Road in Rachenahalli Main Road		1.00	60.00	0.45	0.23	6.21		
							84.87	4438.22	**376671.73**
	Basic rate	######							
	Area Weightage 6%	251.22							
	Final Rate	######							
7	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)								
	Near Govt High School Thnisandra	Sqm							
	1st Cross Road		2.00	110.00		0.23	50.60		
	Cross Road 1		1.00	65.00		0.23	14.95		
	Cross Road 2		1.00	65.00		0.23	14.95		
	Cross Road 3		1.00	65.00		0.23	14.95		
	Cross Road 4		1.00	180.00		0.23	41.40		
	Cross Road 5		1.00	165.00		0.23	37.95		
	Cross Road in Rachenahalli Main Road		1.00	60.00		0.23	13.80		
							188.60	102.82	**19391.85**
	Basic rate	97.00							
	Area Weightage 6%	5.82							
	Final Rate	**102.82**							
8	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)								
	Coping	Cum							
	Near Govt High School Thnisandra								
	1st Cross Road		2.00	110.00	0.15	0.075	2.48		
	Cross Road 1		1.00	65.00	0.15	0.075	0.73		
	Cross Road 2		1.00	65.00	0.15	0.075	0.73		
	Cross Road 3		1.00	65.00	0.15	0.075	0.73		
	Cross Road 4		1.00	180.00	0.15	0.075	2.03		
	Cross Road 5		1.00	165.00	0.15	0.075	1.86		
	Cross Road in Rachenahalli Main Road		1.00	60.00	0.15	0.075	0.68		
	Near Govt High School Thnisandra								
	1st Cross Road		2.00	110.00	0.45	0.075	7.43		
	Cross Road 1		1.00	65.00	0.45	0.075	2.19		
	Cross Road 2		1.00	65.00	0.45	0.075	2.19		
	Cross Road 3		1.00	65.00	0.45	0.075	2.19		
	Cross Road 4		1.00	180.00	0.45	0.075	6.08		
	Cross Road 5		1.00	165.00	0.45	0.075	5.57		
	Cross Road in Rachenahalli Main Road		1.00	60.00	0.45	0.075	2.03		

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
							36.90	5767.46	**212819.27**
	Basic rate	######							
	Area Weightage 6%	326.46							
	Final Rate	######							
9	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)								
	For BS Slab Cover	Sqm					26.4		
	Consider 20% for Damaged and Missing Slabs								
	Near Govt High School Thnisandra		2.00	110.00	1.20		264.00		
	1st Cross Road		1.00	65.00	1.20		78.00		
	Cross Road 2		1.00	65.00	1.20		78.00		
	Cross Road 3		1.00	180.00	1.20		216.00		
	Cross Road 4		1.00	165.00	1.20		198.00		
	Cross Road 5		1.00	60.00	1.20		72.00		
	Cross Road in Rachenahalli Main Road								
							-132.00		
	Deduct Available						**800.40**	825.74	**660922.30**
	Basic rate	779.00							
	Area Weightage 6%	46.74							
	Final Rate	**825.74**							
10	KSRB 5-9 : Providing chamfering edges to stone slab 2.5 cms. wide as per specifications. (only chamfered length shall be recorded) KBS 5.1.13 (P.No.24, I.No.5.22 of PW, P&IWTD SR 2016-17)								
	For BS Slab Cover	m							
	Consider 20% for Damaged and Missing Slabs		1	37.00		3.60	133.20		
	Near Govt High School Thnisandra								
	1st Cross Road		2.00	183.00		3.60	1317.60		
	Cross Road 2		1.00	108.00		3.60	388.80		
	Cross Road 3		1.00	108.00		3.60	388.80		
	Cross Road 4		1.00	300.00		3.60	1080.00		
	Cross Road 5		1.00	275.00		3.60	990.00		
	Cross Road in Rachenahalli Main Road		1.00	100.00		3.60	360.00		
							4658.40	37.10	**172826.64**
	Basic rate	35.00							
	Area Weightage 6%	2.10							
	Final Rate	**37.10**							
11	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)								
	Road Portion	Cum							
	Near Govt High School Thnisandra		1.00	65.00	4.80	0.25	78.00		
	Cross Road 3		1.00	60.00	4.80	0.25	72.00		
	Cross Road in Rachenahalli Main Road		1.00	165.00	5.80	0.25	239.25		
	Cross Road 5		1.00	85.00	5.50	0.25	116.88		
	Cross Road 6		10.00	2.00	2.50	0.25	12.50		
	Bad Reaches		12.00	1.50	1.50	0.25	6.75		
			8.00	1.00	2.00	0.25	4.00		
							529.38	164.76	**87219.83**
	Basic rate	46.00							
	Loading and unloading with 15km lead= 68+2.50x1.28x15 = 116	116.00							
	Sub Total	162.00							

	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
	Area Weightage 6%	2.76							
	Final Rate	**164.76**							
	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)								
		Cum							
	Road Portion								
	Cross Road 5		1	165.00	5.80	0.25	239.25		
	Cross Road 6		1	85.00	5.50	0.25	116.88		
	Bad Reaches		10	2.00	2.50	0.25	12.50		
			12	1.50	1.50	0.25	6.75		
			8	1.00	2.00	0.25	4.00		
							379.38	1768.08	**670765.35**
	Basic rate	######							
	Area Weightage 6%	100.08							
	Final Rate	######							
13	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)								
		Sqm							
	Road Portion								
	Cross Road 5		1.00	165.00	5.80	--	957.00		
	Cross Road 6		1.00	85.00	5.50	--	467.50		
	Bad Reaches		10.00	2.00	2.50	--	50.00		
			12.00	1.50	1.50	--	27.00		
			8.00	1.00	2.00	--	16.00		
							1517.50	27.56	**41822.30**
	Basic rate	26.00							
	Area Weightage 6%	1.56							
	Final Rate	**27.56**							
14	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)								
	Near Govt High School Thnisandra	Sqm							
	1st Cross Road		1.00	110.00	5.90	--	649.00		
	Cross Road 1		1.00	60.00	5.40	--	324.00		
	Cross Road 2		1.00	60.00	5.10	--	306.00		
	Cross Road 4		1.00	180.00	5.40	--	572.00		
							1851.00	3.18	**5886.18**
	Basic rate	3.00							
	Area Weightage 6%	0.18							
	Final Rate	**3.18**							
15	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
		Sqm							
	For Laying BC								
	1st Cross Road		1.00	110.00	5.90	--	649.00		
	Cross Road 1		1.00	60.00	5.40	--	324.00		
	Cross Road 2		1.00	60.00	5.10	--	306.00		

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Cross Road 4		1.00	180.00	5.40	--	972.00		
	Cross Road 5		1.00	165.00	5.80	--	957.00		
	Cross Road 6		1.00	85.00	5.50	--	467.50		
							3675.50	12.72	**46752.36**
	Basic rate	12.00							
	Area Weightage 6%	0.72							
	Final Rate	**12.72**							
16	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	0	Cum							
	For Laying BC								
	1st Cross Road		1	110.00	5.90	0.04	25.96		
	Cross Road 1		1	60.00	5.40	0.04	12.96		
	Cross Road 2		1	60.00	5.10	0.04	12.24		
	Cross Road 4		1	180.00	5.40	0.04	38.88		
	Cross Road 5		1	165.00	5.80	0.04	38.28		
	Cross Road 6		1	85.00	5.50	0.04	18.70		
							147.02	8118.54	**1193587.75**
	Basic rate (Issue Rate)	######							
	Area Weightage 6%	488.54							
	Final Rate	######							
17	KSRRB M800-19. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line	Sqm	2	575.00	0.10	--	115.00		
							115.00	542.72	**62412.80**
	Basic rate	512.00							
	Area Weightage 6%	30.72							
	Final Rate	**542.72**							
18	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum) ((P.No.177, I.No.22.6.1 of PW,P&IWTD SR 2016-17)								
	Road Portion	Cum							
	Near Govt High School Thnisandra								
	Cross Road 3		1.00	65.00	4.80	0.10	31.20		
	Cross Road in Rachenahalli Main Road		1.00	60.00	4.80	0.10	28.80		
							60.00	6217.96	**373077.60**
	Basic rate	######							
	Area Weightage 6%	351.96							
	Final Rate	######	6217.91						

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
19	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.177, I.No.22.7 of PW, P&IWTD SR 2016-17)								
	Near Govt High School Thnisandra	Sqm							
	Cross Road 3		1.00	65.00	4.80	--	312.00		
	Cross Road in Rachenahalli Main Road		1.00	60.00	4.80	--	288.00		
							600.00	95.40	**57240.00**
	Basic rate	90.00							
	Area Weightage 6%	5.40							
	Final Rate	**95.40**							
								Total Construction Cost	**4895112.609**
20								**Cost towards PMC / Third Party inspection LS**	**97903.00**
								Sub Total	**4993015.61**
21								**Miscellaneous and rounding off**	**6984.39**
								Total	**5000000.00**

Certificate.

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Tejus Consultants

Assistant Engineer | Assistant Executive Engineer | Executive Engineer 18/6/18

BRUHAT BANGALORE MAHANAGARA PALIKE
Excecutive Engineer Project Division Yelahanka

Project 9: Drilling of Borewells and Maintenance in Ward No.06 Est Cost=30.0Lakh

	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Geophysical investigation of site for sinking Borewell for supplying drinking water to the habitation either through the Hand pump, MWS of P.W.S.S by vertical electrical sounding by adopting Venner or Schlumberger's method, including reconnaissance survey of geological formation, Gerophysical investigation of existing Ground Wate in the vicinity, its qualityf 1.0 meter in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site., engaging techinical personal and labour required etc., as per Specification and direction **(P.47, I. 9.4) PRED.SR 2012-13**								
	Basic Rate	1882							
	Area Weightage 3%	56.46							
	Total	1938.46							
			4				4	1938.46	**7753.84**
2	Sinking borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above CFM & above in all strats including over burden upto 20 mts fixing of casing pipes, collars and cap with necessary cutting, throading and welding including transportation of rig and supporing vehicles, crew charges and cost of consumables etc., complete including yield testing at the final depth with a minimum working of compressor for one hour (excluding coat of casing pipes, collars, cap etc.,) **Page no. 46 / I. 9.1 PRED SR 2012-13**								
	Basic Rate	306							
	Area Weightage 3%	9.18							
	Total	315.18							
	0 to 50 m		4	50.00			**200.00**	315.18	**63036.00**
	Basic Rate	400							
	Area Weightage 3%	12							
	Total	412							
	50 to 100 m		4	50.00			**200.00**	412.00	**82400.00**
	Basic Rate	445							
	Area Weightage 3%	13.35							
	Total	458.35							
	100 to 150 m		4	50.00			**200.00**	458.35	**91670.00**
	Basic Rate	470							
	Area Weightage 3%	14.1							
	Total	484.1							
	150 to 200 m		4	50.00			**200.00**	484.10	**96820.00**
	Basic Rate	544							
	Area Weightage 3%	16.32							
	Total	560.32							
	200 to 250 m		4	50.00			**200.00**	560.32	**112064.00**
	Basic Rate	583							
	Area Weightage 3%	17.49							
	Total	600.49							
	251 to 300 m		4	50.00			**200.00**	600.49	**120098.00**
3	Supply of ISI mark 175 mm nominal bore medium black ERW casing pipe of 5 mm thick black electric resistance continuous welded mild steel tube material confirming to IS 1387 / 1993 & manufactured from hot rolled steel skelp / stripes in random length of 4 to 7 mts both ends threaded confirming to IS 554 / 1985, one end fixed with a socket and the other and with a plastic protection end (including of all taxes) **SE PRED III NO 84**								

		Rmtr	4	60.00			240.00	1325.00	318000.00
	oviding 250mm dia PVC Pipe **BWSSB SR 16-17 PNO 57 SL NO 11**								
		Rmtr							
			4	15.00			60.00	1144.00	68640.00
	Providing 175mm dia ms casing cap **page no III it no 85 pred 12-13 sr**								
		no	4				4.00	100.00	400.00
	Providing MS Casing pipe collars **page no III it no 86 pred 12-13 sr**								
			4	10.00			40.00	150.00	6000.00
	Supply and delivery at site brand New texmo/ innoval/ Lubi/ Sabar / **Atalanta**/ Calamal/ make suitable for vertical installation in 150mm dia bore well comprising of single stage or multistage CF pump close coupled by measns of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water (Wet type) squirrel cage submersible induction motor suitable for opertation of 3PH., 50 Hz, 380/440 volts AC supply fitted with required aqccessories such as suction, casing suction strainers sand guard Non return value etc. complete . The pump and motor shall form an integral unit with all the required fittings . PAGE NO XXXXIII								
	17.5 HP 30 Stage		4				4	74300.00	297200.00
8	. KSRB13-3.1: Providing and fixing to wall celling and floor glavanised/ mild steel tubes (medium grade 1.27 kg /mt) B class 50 mm dia nominal bore with all fittings (earth work in trenches to be measured and paid for separately) including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. (Page 90 ITEM NO 13.6)								
	Basic rate	510.00							
	Sub Total-1	510.00							
	3% AW	15.30							
	Sub Total-2	525.30							
		Mtr	4	305.00			1220.00	525.30	640866.00
9	Supplying and drawing 3 core flat PVC sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS:8130-1984 and virgin grade PVC insulation and Powder coated extrued PVC sheathed suitable for working voltage upto 1100 Volts as per IS - 694 ; 1990 AND CONFORMING TO gtp OFGROUP A **P. No. 12/ I No. (2.10.4) 3cx 6.0 Sqm KPWD Electrical SR 2014-15**								
		Mtr	4	600.00			2400.00	188.70	452880.00
10	Labour charges for erection of new/ repaired submersible pumpset along with gi pipes inculding transportion each length **pno 558 ino 3 bwssb sr 14-15**								
		NO	4	50.00			200	88.00	17600.00
11	Supplying and flush polished wood board with out front frount plank made of not less than 15mm thick plank after due groove cutting Finishing with necessary on **fixing the same to the wall using tapered** inverted wooden plugs screws etc., **P No. 44No.6.6.6 KPWD Electrical SR 2014-15**								
	20x20x2.5	Each	4				4	302.00	1208.00
12	Supplying of 1.1 KV LT UG cable having aluminium condutor PVC insulated shethed, EXTREDED INNER SHEATHRD galvnised steel,stirp confirming IS 3975;1990 AND extruded PVC outer sheathing armoured cable IS 1554 part 1;1998 and confirming to GTP of group.**P No.55/ I No.7.4.4 (4 core 16 Sqmm) KPWD Electrical SR 2014-15**								
		Mtr	4	35.00			140.00	140.40	19656.00
13	Labour charges for laying of 1.1 K.V class UG cable, **P No. 61 / I No. 7.8.1 In existing trencg/duct 6Sqmm to 16 Sqmm) KPWD Electrical SR 2014-15**								
		Mtr	4	35.00			140.00	10.80	1512.00
14	Digging or trenching of 0.6m deep x 0.5 mtr wide refilling the trench to the required ground level and consolidating etc., complete**P No. 62/ I. No.7.9.4 KPWD Electrical SR 2014-15**								
	For Cutting Road Surface aspalt	Mtr	4	30.00			120.00	117.00	14040.00

	...and fixing of Class A (meaium duty) GI pipe of wall thickness not less than 3.25mm on ...wall/ drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class **P. No. 62/ I ... KPWD Electrical SR 2014-15**								
	...mm dia GI pipe	Mtr	4	3.00			**12.00**	345.00	**4140.00**
	...ving and fixing L.T. cast Iron pot head suitable for 1.1 KV class UG cable filled with necessary ...ompound/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., **P. ...I No. 7.13.2 KPWD Electrical SR 2014-15**								
	...mm	NO	4				**4.00**	280.00	**1120.00**
	...pplying, fixing, wiring, earth electrode for grounding conduits, I.C cutouts and other equipments on ...he meter board using 40 mm dia 2.90 mm thick GI pipe 2.5 m long buried in a pit. The pit should be ...filled with equal propotion of solt and charocoal 150 mm alround the pipe to complete depth. The ...connection from the pipe to the conduit etc., is to be established through GI wire of size, as per ISI ...specification 7.3.3 IS 732 using 12 mm dia bolts, nuts, washers and check nuts, etc., the pipe shall have ...two throught holes of 122 mm dia, **(P No.55, I No. 7.1) KPWD Electrical SR 2014-15**								
		NO	4				**4**	2727.00	**10908.00**
	Supplying and fixing of Porcelain fuse channel with cut out on existing wooden / panel using necessary ...nuts, bolts and washer etc., complete.... **P No44/I No 6.7.4 KPWD Electrical SR 2014-15**								
	100 Amps	Each							
		4	3				**12**	360.00	**4320.00**
	Supplying and fixing of heavy duty glands for ug cable 1.1 kv etc., complete.... **P No62 I No 7.14.2 KPWD Electrical SR 2014-15**								
	25mm dia	Each							
		4	6				**24**	86.00	**2064.00**
		4	6				**24**	86.00	**2064.00**
20	Supplying and fixing miniature circuit breakers/solaters on existing MCB distribution boards using necessary fixing materiasl wiring complete as requireds 5 to 32 amps triple pole with all lead and lift, loading, unloading and labour charges etc complete as per specifications **pno 47 IT 6.16.5 KPWD Electrical SR 2014-15**								
		Each	4				**4**	1547.00	**6188.00**
21	Fabrication supplying and mounting MS box of 16 SWG suitable for floor /wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primer paint and finally finished with approved colour enamelled metal paint etc., complete box of 21600 sqcm @ Rs.0.33 **P.No. 49, I. No.6.40.2 KPWD Electrical SR 2014-15**								
	16SWG	Sq.Cm	8	300.00	60.00		144000.00		
			4	400.00	25.00		40000.00		
							184000.00	0.33	**60720.00**
22	KSRB 13-7.1-4: Providing and fixing in position 50mm nominal bore gun metal non-return valve horizontal type of approved make including cost of all materials, labour and HOM of equipments with all leads complete as per specifications NO KBS 13.2.16 / 13.13 **Page No.90 Item No. 13.55 / PWD SR 2016-17**								
	Basic rate	1496.00							
	Sub Total-1	1496.00							
	3% AW	44.88							
	Sub Total-2	**1540.88**							
		NOS	4				4	1540.88	**6163.52**
23	Providing NP/CP waste unions conforming to ISI specifications and fixing them in position as per directions including cost of materials, fixtures and conveyance to work spot etc., complete. **P. No.92/ I. No. 13.81.3 PWD SR**								
	Basic rate	215.00							

2.13 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms in depth, compacting each deposited layer by ramming after watering with a lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications Specification no 2.1 **.(Page No.6, Item No. 2.10)**								
Basic rate	127.00							
Sub Total-1	127.00							
3% AW	3.81							
Sub Total-2	**130.81**							
				Per Cmtr		**540.00**	95.40	**51516.00**
BESCOM Deposit	L/S	4				**4**	14000.00	**56000.00**
					Total Construction Cost			**2928756.96**
			Cost towards PMC / Third Party inspection LS					**58575.00**
							Sub Total	**2987331.96**
				Miscellaneous and rounding off				**12668.04**
							Total	**3000000.00**

Certificate

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4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Engineer | Asst. Executive Engineer, | Executive Engineer, 18/6/18